

TITLE: REDUCTION OF ANTIOXIDANT ENZYME LEVELS IN TUMOR CELLS USING
ANTISENSE OLIGONUCLEOTIDES
INVENTORS NAME: Larry Wayne Oberley et al.
DOCKET NO.: 875.042US1

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GCAGGATCGGC GGGCATCAGCG GTAGCACCCAG CACTAGCAGC ATGTTG AGC CGG GCA
 V C G T S R Q L A P M L S R H -20
 Val Cys Gly Thr Ser Arg Gln Leu Ala Pro Met Leu Ser Arg Ala
 GTG TGC GGC ACC AGC AGG CAG CTG CCTG GCT CCC TGT GGG TAT CTG GGC TCC AGG
 10
 Q K H S L P D L P Y D Y G A L E P H
 Gln Lys His Ser Leu Pro Asp Leu Pro Tyr Asp Tyr Gly Ala Leu Glu Pro His
 CAG AAG CAC AGC CTC CCC GAC CTG CCC TAC GAC TAC GGC TAC GAA CCT GAC GCA CGC CTG GAA CCT TAC GTC GAC
 20
 I N A Q I M Q L H H S K H A A Y V
 Ile Asn Ala Gln Ile Met Gln Leu His His Ser Lys His His Ala Ala Tyr Val
 ATC AAC GGG CAG ATC ATG CAG CTC ATG CAG GAG AAG TAC CAG GAG AAG GAG AAT
 30
 N N E N V T E E K Y Q E A L A K G D
 Asn Asn Leu Asn Val Thr Glu Glu Lys Tyr Gin Glu Ala Leu Ala Lys Gly Asp
 AAC AAC CTG AAC GTC ACC GAG GAG AAG TAC CAG GAG AAG GAG AAT
 40
 V T A Q I L Q P A L K F N G G G H
 Val Thr Ala Gln Ile Ala Leu Gln Pro Ala Leu Lys Phe Asn Gly Gly Gly His
 GTT ACA GCC CAG ATG CTC AG CCT GCA GTC AAG TTC AAT CCT GGT CGT CAT
 50
 60
 70
 80

1

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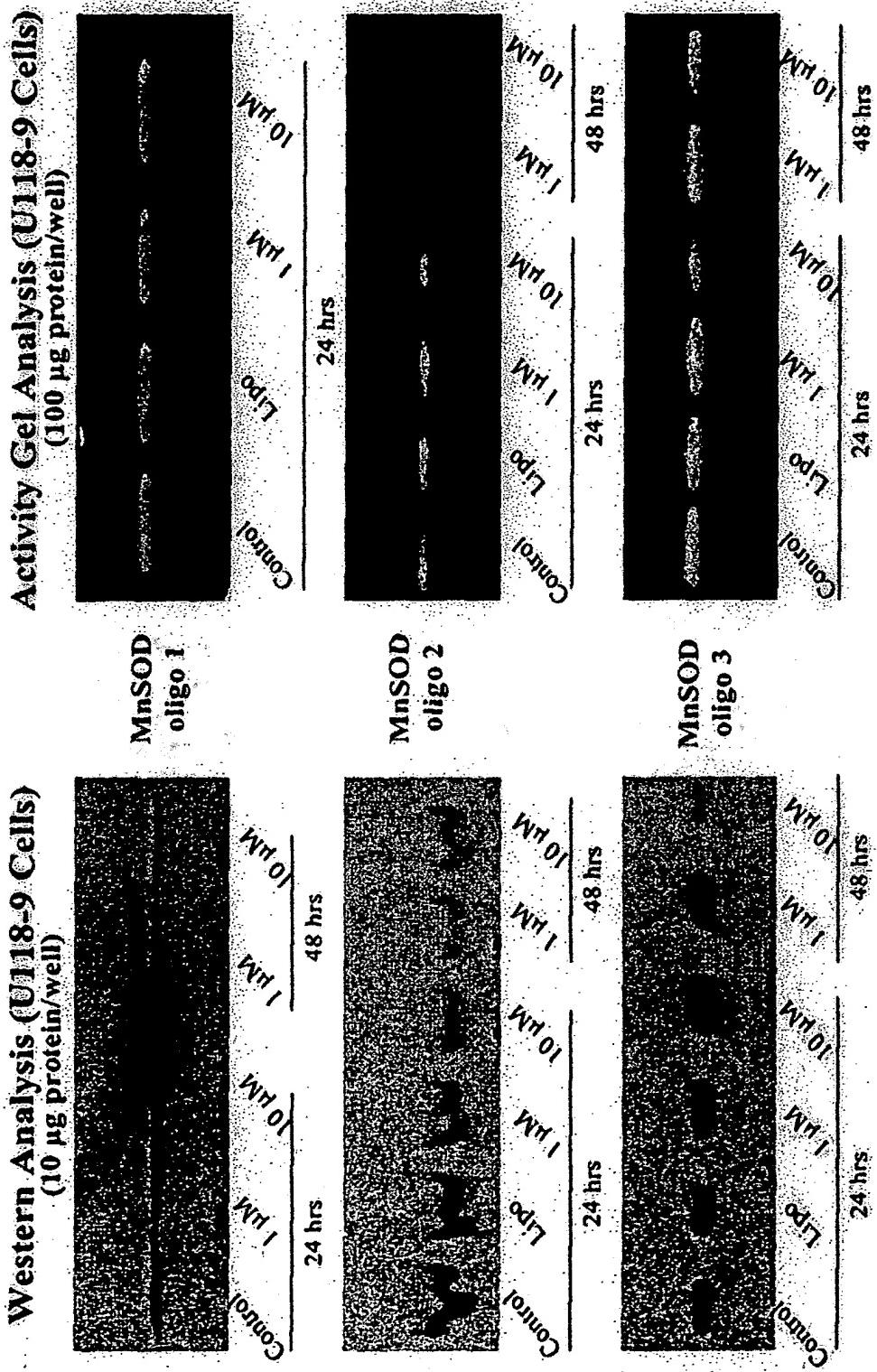


FIG. 2A

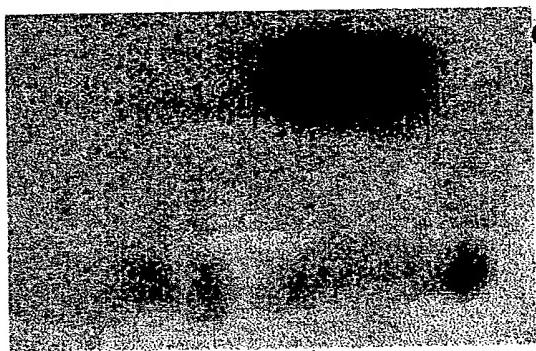
FIG. 2B

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MnSOD Western

IG. 3A → MnSOD



IG. 3C → Catalase

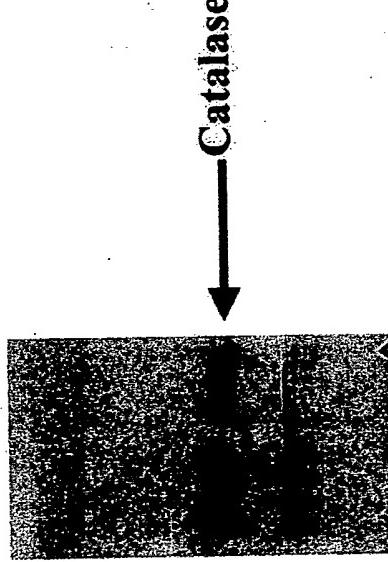


FIG. 3C

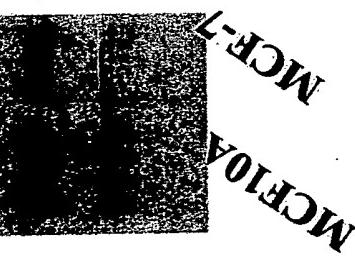


FIG. 3B → Catalase

MCF-7
Bovine GPx STD

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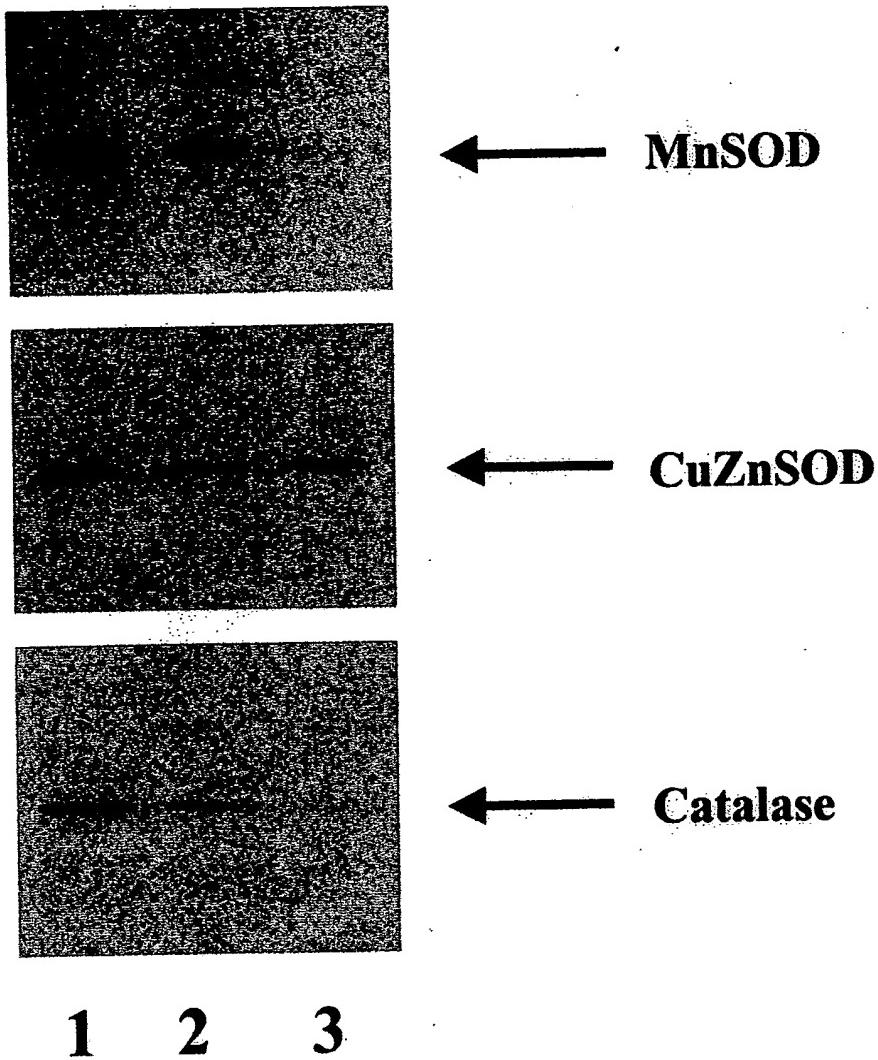


FIG. 4

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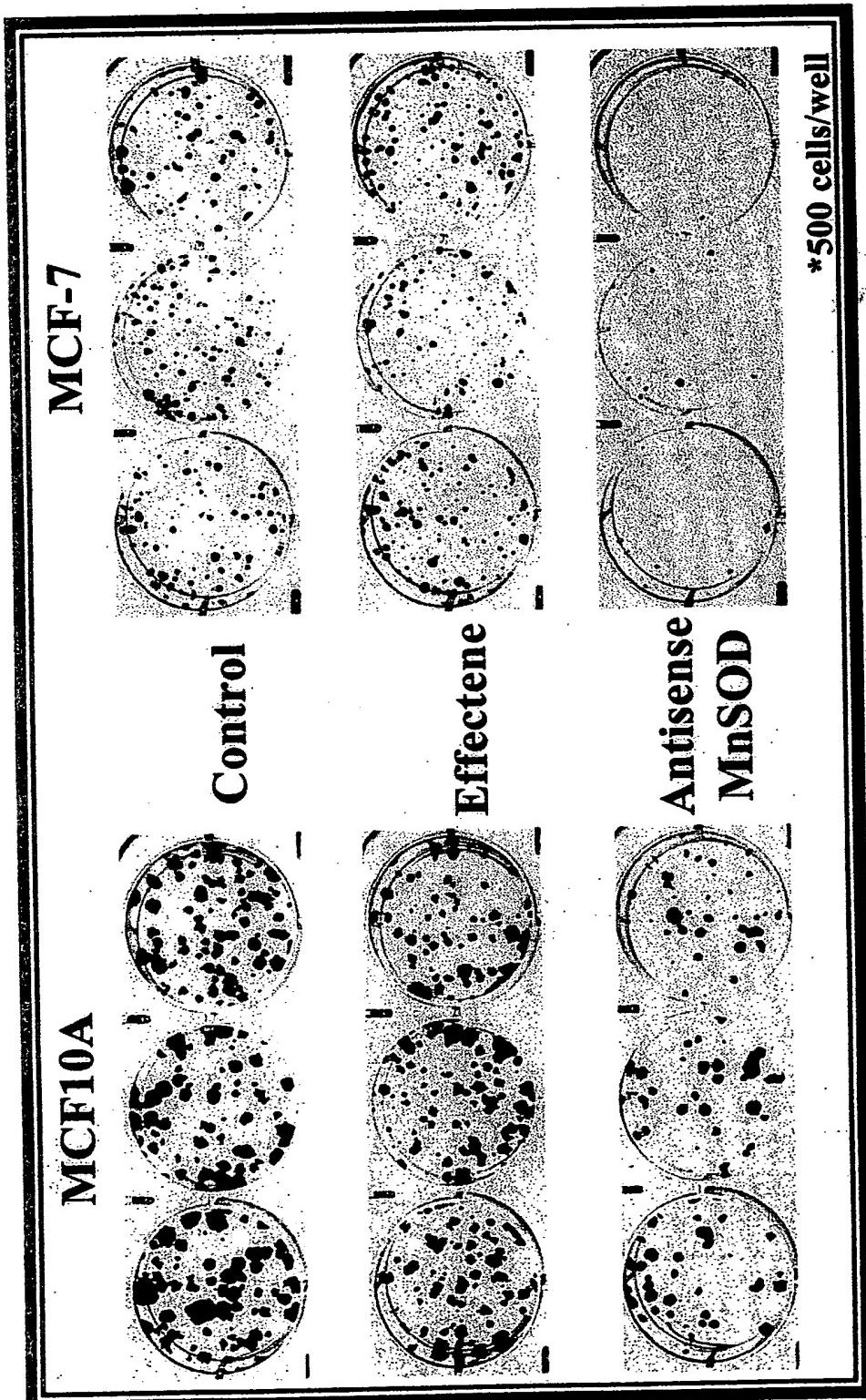


FIG. 5

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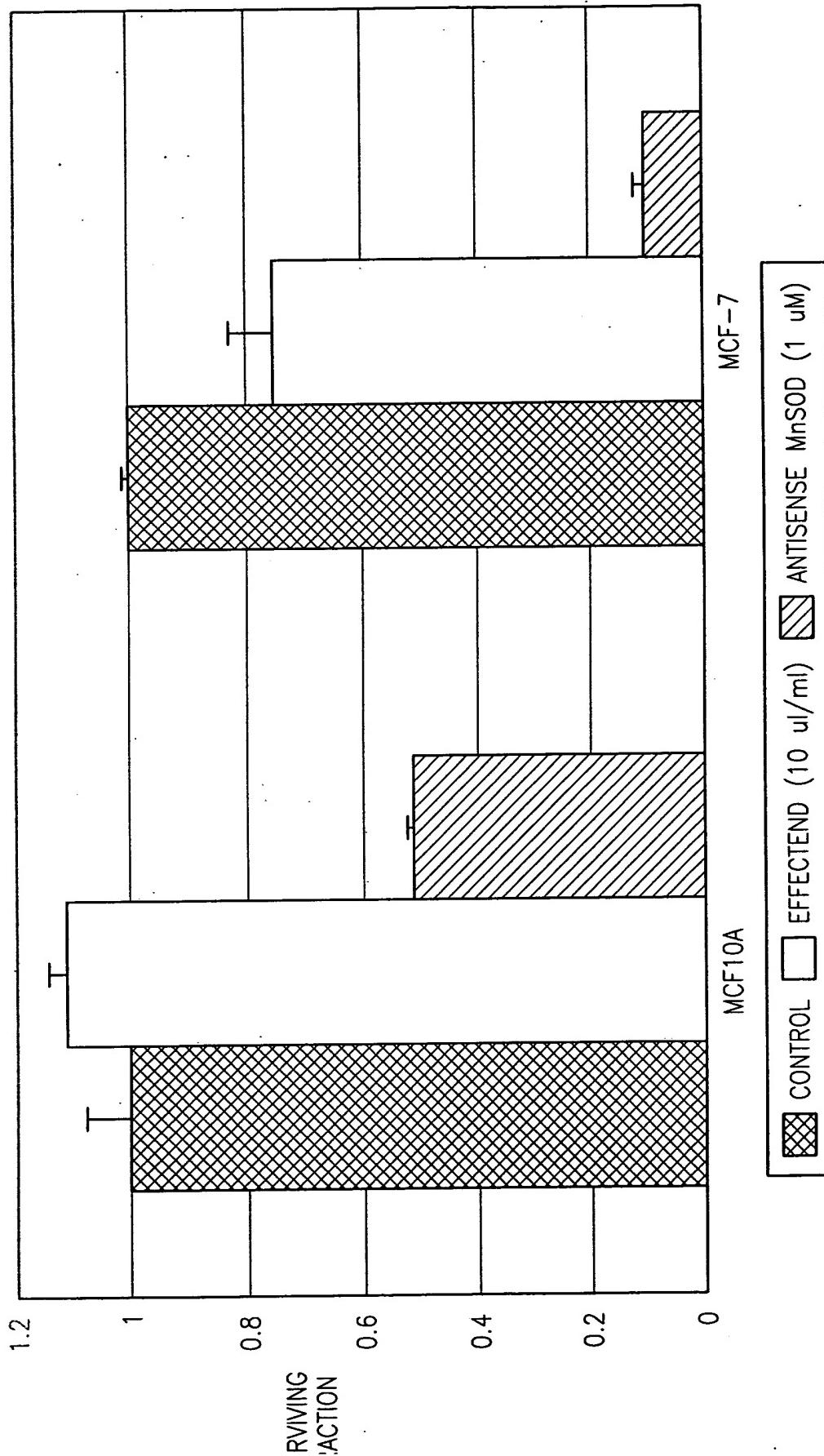


FIG. 6

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MCF-7

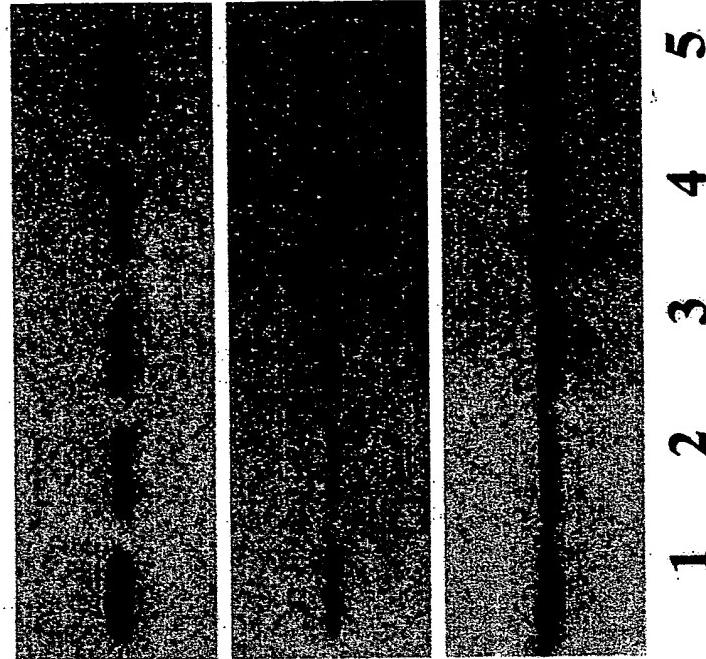


FIG. 7B

MCF10A

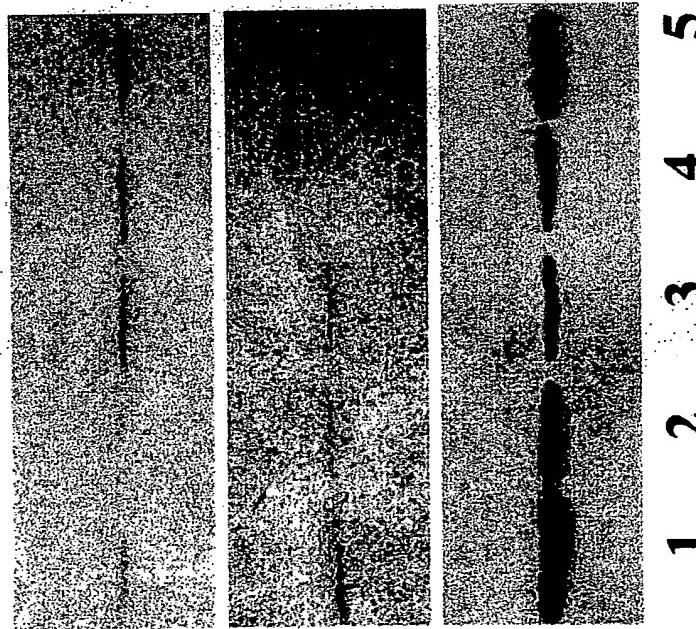


FIG. 7A

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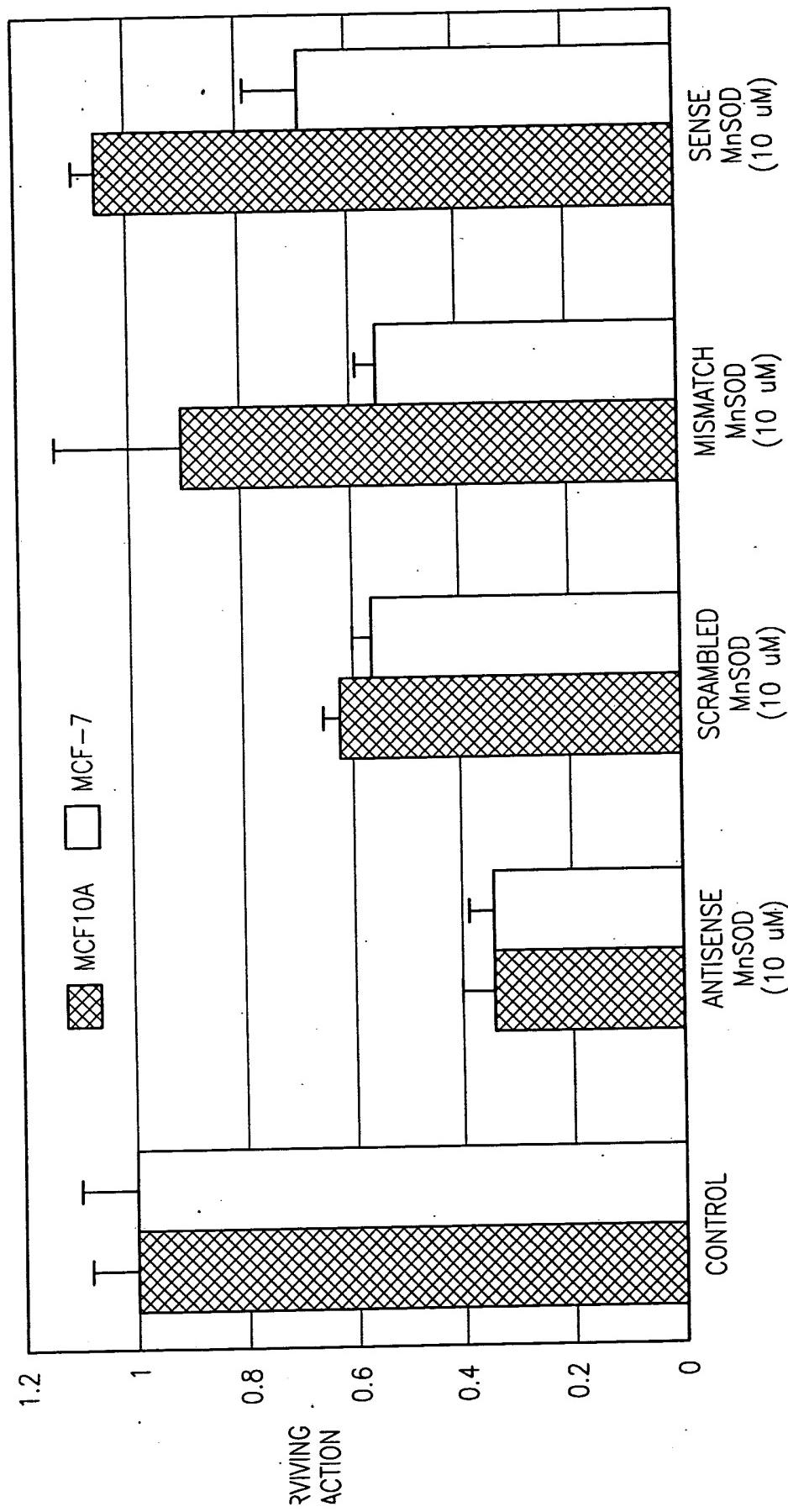


FIG. 8

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Group	Disease Free Mice (Day 316)	Number of Mice Living
MCF-7 Control	25% (1/4)	(2/4)
Lipofection only	25% (1/4)	(1/4)
Antisense MnSOD ODN	75% (3/4)	(3/4)
Mismatch MnSOD ODN	0% (0/4)	(0/4)
Scrambled MnSOD ODN	50% (2/4)	(2/4)
Sense MnSOD ODN	25% (1/4)	(1/4)

FIG. 9

TITLE: REDUCTIVE EFFECT OF ANTIOXIDANT ENZYME LEVELS ON TUMOR CELLS USING
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FIG. 10A

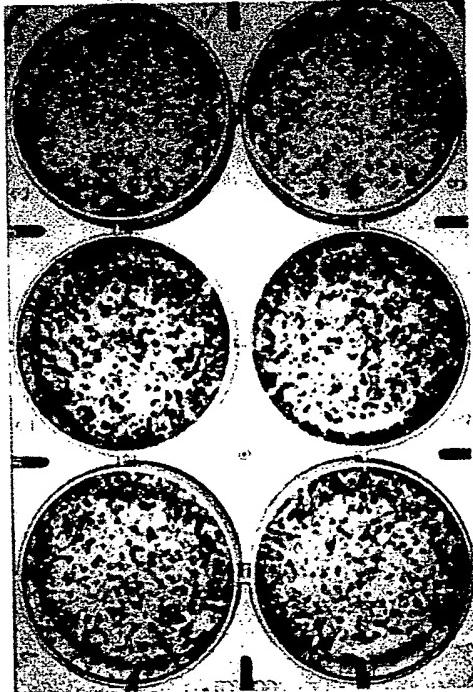


FIG. 10B



Control →

Effectene

Antisense
MnSOD

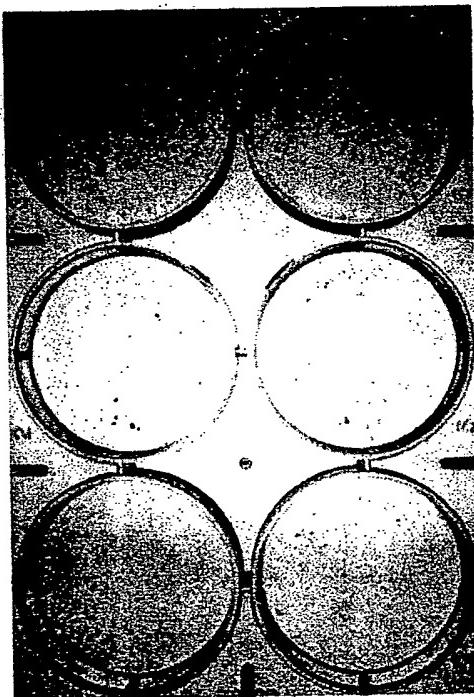


FIG. 10C

*500 cells/well

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